Massachusetts Electric
A National Grid Company

Amy G. Rabinowitz
Assistant General Counsel

June 9, 2005

Mary L. Cottrell, Secretary
Department of Telecommunications and Energy
One South Station
Boston, MA 02110

Re: D.T.E. 04-116

Dear Secretary Cottrell:

On behalf of Massachusetts Electric Company and Nantucket Electric Company, I am enclosing our responses to the Department's second set of information requests.

Thank you very much for your time and attention to this matter.

Very truly yours,

Amy G. Rabinowitz

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DTE-LDC 2-1

Request:

Please provide, to the extent such information is available, your LDC's average response time in minutes from the receipt of a report that electrical wires are lying in the road (such as would result from a vehicle collision with a distribution pole or a tree structure failure) to the arrival of a service crew at the scene of the accident.

Response:

Using the DTE criteria for interruptions, the 2004 Mass. Electric data shows that there were 425 events where the cause of the event was listed as tree or vehicle and the failed components were conductor, pole, or crossarm. Not all of these events had the time of arrival information within the record. For the 304 events that did have this information recorded, the average response time was 52 minutes, as shown in the following table.

	Events of Interest	
Description	Number of Events	Ave Response Time (minutes)
Total	425	Not available
Storm	*85*	*Not available*
Non-storm	*340*	*Not available*
Time arrival data recorded	304	52
Storm	*56*	*78*
Non-storm	*248*	*46*
Time arrival data not recorded	121	Not available

Prepared by or under the supervision of: Cheryl A. Warren

DTE-LDC 2-2

Request:

Please provide the approximate length of time that is required to de-energize downed wires from the time a Company service crew arrives at the scene of the accident. For purposes of this question, assume that the associated feeder is not remotely controlled.

Response:

The answer to this question depends on the type of conductor and the voltage class that is associated with the downed wire. If the downed wire is a service drop (240/120 volt) that is between the service pole and a customer's service entrance cable, it could be de-energized within 5-10 minutes of the arrival of a Company service crew.

If the downed wire is a secondary conductor (240/120 volt) pole to pole, it could be de-energized within 10-15 minutes of the arrival of a Company service crew.

If the downed wire is a distribution primary conductor (2,400 volts up to 15,000 volts), it could be de-energized within 15-30 minutes of the arrival of a Company service crew.

Prepared by or under the supervision of: Donald J. Dufault

DTE-LDC 2-3

Request:

Please comment on the feasibility of adopting a service quality performance standard for electric LDCs' response times to downed wire reports, similar to the service quality performance standard for gas distribution company odor response calls.

Response:

The Company believes that it is not feasible to have a service quality performance standard related to response time for downed wire reports. Although Mass. Electric is usually the first responder for any and all downed wires, Mass. Electric often finds that the downed wires are not electrical, and refers the call to the appropriate company.

In the course of a normal day, the Company may receive calls related to downed wires. The calls are entered into the outage management system and are dispatched in the control centers to the Company's service crews. After field investigation, the Company commonly finds that the downed wires are not related to electrical distribution, but rather relate to either telephone loops or cable television service drops. If that is the case, the Company then refers the call to the appropriate company. If it is Mass. Electric equipment, the Company addresses the problem accordingly.

In the course of a storm, the Company receives a very large number of calls related to downed wires. The Company could receive thousands of downed wire calls. The number of downed wires that are not related to electrical distribution is proportionally very high during a storm and it would be difficult to separate these events from electrical distribution system events for reporting purposes.

Prepared by or under the supervision of: Donald J. Dufault

DTE-LDC 2-4

Request:

Please discuss the feasibility of introducing momentary average interruption frequency index ("MAIFI") as a service quality reporting requirement, phased in over a five-year period such that circuits which are equipped to report MAIFI data are reported in the initial year, with additional circuits added to the annual reporting requirement as they become equipped to report MAIFI data.

Response:

The Company recommends against introducing a MAIFI service quality reporting requirement. System-wide service quality metrics should be meaningful to the majority of customers served, should be based upon real data, should not cause a change in system design that lengthens customer interruptions and is detrimental to expensive equipment, and should not cost more to obtain than their potential benefit. MAIFI does not meet any one of those standards.

MAIFI, or momentary average interruption frequency index, is a system-wide index. To be meaningful, it should report the momentary interruptions observed by all of the customers. This requires that each and every reclosable protective device on the system have the ability both to report each operation that occurs and distinguish between those operations that result in a permanent interruption and those that are truly momentary events. The information request infers that only feeder level data needs to be collected to produce a MAIFI value for a company's service territory. Feeder level data represents only a very small proportion of the system, not the system as a whole. Using feeder level data has been a common practice in the industry because of the high, unjustifiable cost of capturing the complete data set required to produce the true MAIFI value. It does not, however, produce the correct value of MAIFI that customers experience, nor does it identify any potential trouble spots on the system where remedial action should occur.

Momentary interruptions are only a concern for some of the Company's commercial and industrial customers. The Company works with these customers individually to address their concerns about momentary interruptions, dealing with those specific concerns that affect the customer's operations. This approach works better for customers, by solving any problems they face at their particular location, and is substantially less expensive than dealing with the issue from the system perspective. Quite often, the utilization equipment within a customer's facilities reacts to sags, swells, and instantaneous voltage changes in the same manner as to momentary interruptions. Customer complaints about momentary interruptions must be investigated and evaluated to ensure that the complaints are not generated by these other system conditions, oftentimes from operating conditions within the customer's own operations. Providing a

MAIFI index for the system will not address customer concerns, especially when that index is based on partial system data.

That being said, the Company has chosen not to use the fast trip on reclosing relays and reclosers, devices that are routinely used on utility systems to protect expensive equipment and the system itself from downstream faults and to minimize sustained customer interruptions. These devices, which lengthen the life of the Company's equipment, do cause momentary interruptions. The need for reclosing devices is well documented, yet Mass. Electric has elected to minimize their use to address the concerns about momentary interruptions of a small portion of the customers. In fact, the Company has removed the instantaneous reclosing capability on most devices to eliminate momentary interruptions.

In conclusion, the Company believes it is not prudent or cost-justified to invest the amounts necessary to provide MAIFI reporting on all its feeders within five years.

Prepared by or under the supervision of: Cheryl A. Warren

DTE-LDC 2-5

Request:

If the future service quality guidelines were to include conditions for responding to a request for street light repair by customers please explain:

(a) in detail how your company tracks street light repair requests from the initial street light out call to its repaired status;
(b) if and how this time period has changed over the last five years;
(c) the reasons for any changes in the company's response time to repair street lights and the actual time(s); and
(d) the difference in time to repair an overhead street light compared to an underground street light.

Response:

(a) The Company receives requests for street light repairs by phone, internet, and fax. The Company directly enters street light outage repair requests into the Street Light Outage system ("SLO") regardless of the channel through which the request is made. This system electronically interfaces with the Company's work management system and prints in real time a work order at the appropriate crew headquarters.

Requests received by phone are entered into SLO at the time the call is received in the Customer Service Center. Faxed requests and those received via the internet are normally entered into SLO within one business day. Once an order is entered into SLO, it immediately prints an order from the work management system in the designated local Operations office. The average time for a short-term repair is currently 1.5 days (April 2005). Street light repairs which are performed proactively by the Company (located and repaired as a result of a "patrol" instead of a request to repair the light) are also included in this average.

If a crew is able to perform the requested work identified in the initial work order on the first visit to the street light having the outage, the initial work order is completed in the work management system, resulting in the work order being closed out in both SLO and the work management system. If follow-on work is required, a second work request, which is electronically linked to the initial work order, is scheduled for re-dispatch with the next available crew. When work has been completed on the follow-on work order, the orders are then closed out in both systems by completing the work order in the work management system.

Each crew headquarters has access to pre-formatted reporting within SLO to monitor performance for both open and completed repair requests.

In addition to the local management of street light repairs, the Outdoor Lighting group publishes monthly performance statistics to management and supervisors to indicate the year-to-date average days to perform short-term (e.g., bulb and/or photo cell replacement) and long-term (e.g., underground cable failure) repairs, total number of orders completed, and total open orders. The Company has also begun reporting the performance in comparison to the same period of time in the previous year.

(b) The average days to repair a street light have been relatively constant over the past five years.

(c) The actual time to perform short-term street light repairs (e.g., bulb and/or photo cell replacements) has consistently remained under two days over the past five years. The vast majority of short-term investigation and actual repair for short-term related outages is less than two days from the date they are reported.

(d) Generally, repairs of overhead-served and underground-served street lights are similar when the repair involves the actual fixture or part thereof (bulb, photo cell, globe/lens, or entire fixture). Single-worker line crews, or Trouble Shooters, typically handle the investigation and repair of these types of street light outages. This work is commonly performed during non-business hours while the Trouble Shooters are not doing emergency restoration work.

However, repairs in an underground-served system that involve cable faults take longer to repair due to access issues and resources that must be scheduled in order to locate and repair the problem. When an underground cable failure/fault is identified, the repair request must be rescheduled to a fault-finding crew. Once the fault-finding crew has located and marked the location, a dig-safe survey is ordered and conducted and an excavation contractor and underground crew are scheduled to repair the fault. Many cable faults are the result of street excavations in the same vicinity of the electrical wires which serve street lights, resulting in damage to those wires and/or connections.

Prepared by or under the supervision of: William T. Sherry